

*Please provide the following information, and submit to the NOAA DM Plan Repository.*

**Reference to Master DM Plan (if applicable)**

*As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.*

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

**1. General Description of Data to be Managed****1.1. Name of the Data, data collection Project, or data-producing Program:**

NOAA Water Level Predictions Stations for the Coastal United States and Other Non-U.S. Sites

**1.2. Summary description of the data:**

The National Ocean Service (NOS) maintains a long-term database containing water level measurements and derived tidal data for coastal waters of the United States and U. S. territories. These data allow for the determination and maintenance of vertical reference datums used for surveying and mapping, coastal construction, waterborne commerce, water level regulation, marine boundary determination, and tide prediction, and for the determination of long-term water level variations (e.g. trends). The data also supports other U.S. government programs, including the National Weather Service (NWS) Tsunami Warning System, the NWS storm surge monitoring programs, and the NOAA Climate and Global Change Program. The database contains an extended series of water level measurements recorded at different tide observation stations. These data are processed to generate a number of products, including monthly and yearly averages for mean tide level, mean sea level, diurnal tide level, mean high and low water, mean range, diurnal mean range, monthly extremes for high and low waters, and frequency and duration of inundations (the number of times and length of time at which the water level has equaled or exceeded a specific elevation for a period of analysis). Data are compiled for coastal waters of the United States, Puerto Rico, the Virgin Islands, and U.S. territories in the Pacific region. Water levels are monitored from a network of over 200 permanent, continuously operating tide observation stations and from numerous stations operated for short-term and long-term projects. Water level measurements are compiled for a variety of observation periods, depending upon the location. For some tide observation stations, records date back to the late 1800s. Observed water level values are compiled primarily at six minute increments. In addition, some stations provide real-time data for planning and emergency situations. The observed values are processed to generate mean and extreme values for different temporal intervals, as noted above. The data consist simply of elevations of water, in feet, observed at specific geographic locations and temporal periods. All water level measurements are referenced to staff '0' and can be referenced to other datums, such as the North

American Vertical Datum of 1988 (NAVD 88). Recent data are recorded to the hundredth of a foot; data collected prior to the mid-1960s are recorded to the tenth of a foot. The foundation of the water level database is the National Water Level Observation Network (NWLON), a system of long-term operating tide stations maintained by NOS. Data also are obtained through short-term and long-term cooperative projects with other federal, state, and local agencies and governments to accomplish mutual goals in water level measurement. For example, tide stations are operated temporarily for marine boundary determination and hydrographic survey projects. NOS also maintains several cooperative stations with foreign governments for the Climate and Global Change Program. Indices of tide stations maintained by NOS are available which include for each station the latitude, longitude, dates of observations, bench mark sheet publication date, and tidal epoch. NOS also issues tidal bench mark sheets upon completion of a data collection series or as needed for long-term NWLON stations. Tidal bench mark sheets provide location descriptions and vertical elevations referenced to tidal datums of the station bench marks. A table of tidal datums and the 1929 NGVD, when available, are referenced to the station reference datum. A number of products are issued monthly and annually, for free or on a cost recovery basis. The products are distributed on either hard copy, floppy disk, CD, or over the web and include the following:

- o Tide Observation Station Lists
- o Tides, 6-Minute Heights
- o Tides, Hourly Heights of Tides, Times and Heights of High and Low Waters
- o Tides, Monthly Mean Summaries
- o Tidal Bench Mark S...

**1.3. Is this a one-time data collection, or an ongoing series of measurements?**

Ongoing series of measurements

**1.4. Actual or planned temporal coverage of the data:**

1854-06-30 to Present

**1.5. Actual or planned geographic coverage of the data:**

W: -180, E: 180, N: 70.4, S: -54.8

**1.6. Type(s) of data:**

*(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)*  
map

**1.7. Data collection method(s):**

*(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)*

**1.8. If data are from a NOAA Observing System of Record, indicate name of system:**

**1.8.1. If data are from another observing system, please specify:**

**2. Point of Contact for this Data Management Plan (author or maintainer)****2.1. Name:**

User Services Team

**2.2. Title:**

Metadata Contact

**2.3. Affiliation or facility:****2.4. E-mail address:**

tide.predictions@noaa.gov

**2.5. Phone number:**

301-713-2815

**3. Responsible Party for Data Management**

*Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.*

**3.1. Name:**

User Services Team

**3.2. Title:**

Data Steward

**4. Resources**

*Programs must identify resources within their own budget for managing the data they produce.*

**4.1. Have resources for management of these data been identified?****4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):****5. Data Lineage and Quality**

*NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.*

**5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible**

*(describe or provide URL of description):*

Process Steps:

- The official Tide prediction tables are published annually on October 1, for the following calendar year. Tide predictions generated prior to the publishing date of the official tables are subject to change. The predictions from the web based NOAA Tide Predictions are based upon the latest information available as of the date of

your request. Tide predictions generated may differ from the official published predictions if information for the station requested has been updated since the publishing date of the official published tables. (Citation: NOAA Tide Predictions)

**5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:**

**5.2. Quality control procedures employed (describe or provide URL of description):**

## **6. Data Documentation**

*The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.*

**6.1. Does metadata comply with EDMC Data Documentation directive?**

No

**6.1.1. If metadata are non-existent or non-compliant, please explain:**

Missing/invalid information:

- 1.7. Data collection method(s)
- 4.1. Have resources for management of these data been identified?
- 4.2. Approximate percentage of the budget for these data devoted to data management
- 5.2. Quality control procedures employed
- 7.1. Do these data comply with the Data Access directive?
- 7.1.1. If data are not available or has limitations, has a Waiver been filed?
- 7.1.2. If there are limitations to data access, describe how data are protected
- 7.2. Name of organization of facility providing data access
- 7.2.1. If data hosting service is needed, please indicate
- 7.3. Data access methods or services offered
- 7.4. Approximate delay between data collection and dissemination
- 8.1. Actual or planned long-term data archive location
- 8.3. Approximate delay between data collection and submission to an archive facility
- 8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

**6.2. Name of organization or facility providing metadata hosting:**

NMFS Office of Science and Technology

**6.2.1. If service is needed for metadata hosting, please indicate:**

**6.3. URL of metadata folder or data catalog, if known:**

<https://www.fisheries.noaa.gov/inport/item/37630>

#### **6.4. Process for producing and maintaining metadata**

*(describe or provide URL of description):*

Metadata produced and maintained in accordance with the NOAA Data Documentation Procedural Directive: [https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC\\_PD-Data\\_Documentation\\_v1.pdf](https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-Data_Documentation_v1.pdf)

### **7. Data Access**

*NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.*

#### **7.1. Do these data comply with the Data Access directive?**

**7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?**

**7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:**

#### **7.2. Name of organization of facility providing data access:**

**7.2.1. If data hosting service is needed, please indicate:**

**7.2.2. URL of data access service, if known:**

[https://tidesandcurrents.noaa.gov/tide\\_predictions.shtml](https://tidesandcurrents.noaa.gov/tide_predictions.shtml)

#### **7.3. Data access methods or services offered:**

#### **7.4. Approximate delay between data collection and dissemination:**

**7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:**

### **8. Data Preservation and Protection**

*The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to*

*identify, appraise and decide what scientific records are to be preserved in a NOAA archive.*

**8.1. Actual or planned long-term data archive location:**

*(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)*

**8.1.1. If World Data Center or Other, specify:**

**8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:**

**8.2. Data storage facility prior to being sent to an archive facility (if any):**

Center for Operational Oceanographic Products and Services - Silver Spring, MD

**8.3. Approximate delay between data collection and submission to an archive facility:**

**8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?**

*Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection*

**9. Additional Line Office or Staff Office Questions**

*Line and Staff Offices may extend this template by inserting additional questions in this section.*